News and Views from the Literature

Infertility

The Y Chromosome and Infertility

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Y Chromosome Analysis of Infertile Men and Their Sons Conceived Through Intracytoplasmic Sperm Injection: Vertical Transmission of Deletions and Rarity of De Novo Deletions

Cram DS, Ma K, Bhasin S, et al.
Fertil Steril. 2000;74:909–915.

Today, men who are normally unable to father children may utilize the technique of intracytoplasmic sperm injection (ICSI) to become fathers. ICSI requires only one sperm to fertilize one egg. Men with azoospermia or oligospermia due to testicular damage (ie, those with Sertoli cell-only syndrome, maturation arrest, or hypospermatogenesis) probably have some sperm somewhere in their testicular tissue. If the testicular sperm from these nonobstructive men can be harvested, then ICSI and resulting fatherhood are possible. However, there is always the question of whether the fathers are passing on the genetic basis for their azoospermia/oligospermia to their male offspring. It is currently believed that a microdeletion of the Y chromosome represents the most frequent pathogenetic cause of defective spermatogenesis in infertile men.[1] To determine whether this defect can be transmitted from father to son, Cram and colleagues investigated the prevalence and type of Y microdeletions in 86 consecutive men who had fathered 99 sons by ICSI. Twenty-nine of the fathers had azoospermia or severe oligospermia. Two of these 29 men had sons with a microdeletion that was also present in the father. None of the other 97 sons had microdeletions nor did their fathers. These observations extend previous preliminary reports of vertical transmission of the Y microdeletion and suggest that all men with nonobstructive azoospermia and/or severe oligospermia who are contemplating ICSI should be evaluated genetically for Y microdeletions; couples with a positive test should undergo genetic counseling prior to the performance of ICSI.[2]

References
1. deKretser DM, Mallidis C, Ma K, Bhasin S. Y chromosome deletions and male infertility. *Reprod Med Rev.* 1997;6:37–53.
2. Schlegel PN. Debate: is ICSI a genetic time bomb? No: ICSI is safe and effective. *J Androl.* 1999;20:18–22.

Interstitial Cystitis

Antibiotic Therapy for Interstitial Cystitis?

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A small but important paper on therapy for interstitial cystitis, published last year in the *Journal of Urology*, was missed by most urologists. Interstitial cystitis, a chronic painful and irritative pelvic disease of unknown etiology, is characterized by symptoms very similar to those experienced by women with bacterial cystitis: pain, urgency, and frequency. Almost every patient diagnosed with interstitial cystitis has been treated with antibiotics at some time in the disease process despite the usual findings of sterile urine. Many patients were initially diagnosed with a bacterial cystitis (although the culture results were often indeterminate), and anecdotally many patients will note that they responded to antibiotic therapy regardless of culture results. Many researchers and clinicians have entertained the belief that women with interstitial cystitis have an unusual urinary tract infection that may respond to antimicrobial therapy. It has been hypothesized that the inflammation and symptoms may be caused by a low-count bacteruria (a colony count below